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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,156	03/23/2004	Yoshimasa Araki	00862.017965	2173
5514 7590 10/16/2007 FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			EXAMINER MRUK, GEOFFREY S	
			ART UNIT 2853	PAPER NUMBER
			MAIL DATE 10/16/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/806,156	ARAKI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Geoffrey Mruk	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,6,7 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,6,7, and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Priority*

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 24 March 2003. It is noted, however, that applicant has not filed a certified copy of the 2003-080204 application as required by 35 U.S.C. 119(b). The examiner further notes that only a cover sheet exists in the Foreign Priority Application document dated 7 July 2004.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 6, 7, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozawa et al. (4,383,263) in view of Koizumi et al. (US 6,000,792).

With respect to claim 1, Ozawa discloses a discharging apparatus having a discharge head in which a plurality of discharge nozzles are arranged to discharge liquids supplied from supply ports through discharge ports, and formed such that some of the plurality of discharge nozzles discharge liquids having different liquid compositions, comprising:

- joint members (Fig. 1, element 110) equal in number to a number of the discharge nozzles (Fig. 1, element 109) and being arranged to face all discharge

nozzles, wherein each joint member operates to cover either the supply port or discharge port when removing the liquid in a discharge nozzle; and

- a plurality of pumps (Fig. 1, element 106; Column 3, line 55) for being selectively connected to said joint members through connecting members and removing the liquid in each of the discharge nozzles by applying a pressure difference between the supply port and discharge port of each discharge nozzle facing said connected joint member (Column 3, lines 42-59),
- wherein different pumps are connected to said joint members which are arranged to face the discharge nozzles (Fig. 1, elements 106, 109). Ozawa further discloses "Embodiments of FIGS. 1-7 show only a type of a liquid-jet head having one ejecting orifice, however the present invention can be applied to a so-called multi-orifice type of a liquid-jet head having two or more ejecting orifices.

With respect to claim 6, Ozawa discloses the discharge head comprises electrothermal transducers which generate heat energy for liquid discharge (Column 26, lines 35-41).

With respect to claim 12, Ozawa discloses the connecting members are detachable from said pumps (Fig. 1, gap between elements 104 and 110).

However with respect to claim 1, Ozawa fails to disclose different liquid compositions, and wherein the liquids removed from the discharge nozzles through said joint members connected to the pumps are filtrated and deaerated, and liquid having the same liquid composition is accumulated together in a liquid collection container to be reused.

Koizumi discloses an ink jet apparatus provided with an improved recovery mechanism where "FIG. 20 illustrates a case of the ink jet recording apparatus provided with a plurality of ink jet recording heads (in the represented example, four heads) of a line type capable of executing a full-color recording" (Column 14, lines 53-59) and "In the filter unit 17, a filter 100 composed of ridge meshes, for example, is provided in order to remove fine dust particles and air bubbles" (Column 1, lines 57-59).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to use the filter disclosed by Koizumi to remove air bubbles in the printhead maintenance system of Waller. The motivation for doing so would have been "to eliminate the causes of the abnormal ink discharging due to the ink droplets, foreign substances, or the like adhering to the circumference of the ink discharging apertures" (Column 3, lines 45-48).

### ***Response to Arguments***

Applicant's arguments with respect to claim 1 has been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey Mruk whose telephone number is (571) 272-2810. The examiner can normally be reached on Monday-Friday 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2853

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GSM  
10/12/2007

GM



**STEPHEN MEIER**  
**SUPERVISORY PATENT EXAMINER**